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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Tong-Sok Kim

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MARSHALL, GERSTEIN & BORUN LLP
233 SOUTH WACKER DRIVE
6300 SEARS TOWER
CHICAGO, IL 60606-6357

EXAMINER

LEE, ANDREW CHUNG CHEUNG

ART UNIT

PAPER NUMBER

2476

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,564	Applicant(s) KIM ET AL.	
	Examiner Andrew C. Lee	Art Unit 2476	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-41 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 1 – 19 have been cancelled.

Claims 20 – 41 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 20, 26, 32, 37, 21, 27, 33, 38, 22, 28, 34, 39, 24, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petite et al. (US 6891838 B1) in view of Rippin et al. (US 6741604 B1).

Regarding claims 20, 26, 32, 37, Petite et al. disclose a digital subscriber's network terminal for home automation communication and the digital subscriber's network accessing apparatus (*Fig. 2, Fig. 3, Fig. 5*), comprising: a home automation service channel module for receiving home automation data from a home automation equipment through a communication channel formed between the home automation equipment and the home automation service channel module (*Fig. 5, col. 17, lines 17 – 54*); and mapping an output signal of the home automation service channel module to a signal sequence of used by a digital subscriber's network and transferring the mapped signal sequence to a digital subscriber's network access unit (*Fig. 2, Fig. 4C, Fig. 4D, col. 14, lines 18 – 61*).

Petite et al. do not disclose explicitly a low rate processing unit and a signal sequence of a low band of a data communication band used by a digital subscriber's network.

Rippin et al. in the same field of endeavor teach a low rate processing unit and a signal sequence of a low band of a data communication band used by a digital subscriber's network (*Fig. 1, Fig. 2, col. 6, lines 5 - 25*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Petite et al. to include the features of a low rate processing unit and a signal sequence of a low band of a data communication band used by a digital subscriber's network as taught by Rippin et al. One of ordinary skill in the art would be motivated to do so for providing methods and apparatus that enable improved exploitation of the spectrum available for ADSL, particularly in the presence of other network services, such as ISDN (*as suggested by Rippin et al., see col. 2, lines 55 – 58*).

Regarding claims 21, 27, 33, 38, Petite et al. disclose the digital subscriber's network terminal and the digital subscriber's network accessing apparatus claimed wherein the home automation service channel module generates a home automation service message based on a message type and an information element for the received home automation data (*Fig. 2, Fig. 5, Fig. 6, Fig.7, Abstract, col. 6, lines 33 – 53*).

Regarding claims 22, 28, 34, 39, Petite et al. disclose the digital subscriber's network terminal and the digital subscriber's network accessing apparatus claimed wherein the home automation service message (*Fig. 6, Fig. 7*) includes a home automation service protocol identifier field, a home automation service reference number field, a message type field including a home automation service content (a request or response), and a home automation service related parameter (*Fig. 6, Fig. 7, col. 18, lines 22 – 66, col. 19, lines 1 – 13*).

Regarding claims 24, 30, Petite et al. disclose the digital subscriber's network terminal and the digital subscriber's network accessing apparatus claimed wherein the home automation service channel module forms a wireless or wired communication channel with the home automation equipment (*"RF transceiver/repeater"; Fig. 2, Fig. 9, Fig. 10, Fig. 11, col. 6, lines 23 – 53, col. 20, lines 29 – 53*).

4. Claims 23, 29, 35, 40, 25, 31, 36, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petite et al. (US 6891838 B1) and Rippin et al. (US 6741604 B1) as applied to claims 20, 21, 22, 26, 27, 28, 32, 33, 34, 37, 38, 39 above, and further in view of Chen et al. (US 7382786 B2).

Regarding claims 23, 29, 35, 40, Petite et al. discloses the digital subscriber's network terminal and the digital subscriber's network accessing apparatus claimed wherein the home automation service related parameter includes user information (*col. 3, lines 14 – 29*) except the user information includes telephone number information linked to the digital subscriber's network terminal.

The combined system of Petite et al. and Rippin et al. does not disclose explicitly the user information includes telephone number information linked to the digital subscriber's network terminal.

Chen et al. in the same field of endeavor teach the user information includes telephone number information linked to the digital subscriber's network terminal (*"toll free number"*; col. 18, lines 7 – 25).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Petite et al. and Rippin et al. to include the features of the user information includes telephone number information linked to the digital subscriber's network terminal as taught by Chen et al. One of ordinary skill in the art would be motivated to do so for providing a broadband communications devices including phone-based home gateway interfaces (*as suggested by Chen et al., see col. 1, lines 19 – 20*).

Regarding claims 25, 31, 36, 41, Petite et al. and Rippin et al. do not disclose wherein the digital subscriber's network terminal is of any one between a dual link discrete multi-tone (DLDMT) or an asynchronous transfer mode (ATM).

Chen et al. in the same field of endeavor teach wherein the digital subscriber's network terminal is of any one between a dual link discrete multi-tone (DLDMT) or an asynchronous transfer mode (ATM) (*"asynchronous transfer mode (ATM)"*; col. 15, lines 30 – 43).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Petite et al. Rippin et al. to include the features of wherein the digital subscriber's network terminal is of any one between a dual link discrete multi-tone (DLDMT) or an asynchronous transfer mode (ATM) as taught by Chen et al. One of ordinary skill in the art would be motivated to do so for providing a broadband communications devices including phone-based home gateway interfaces (*as suggested by Chen et al., see col. 1, lines 19 – 20*).

Response to Arguments

5. Applicant's arguments filed on 11/25/2009 with respect to claims 20 - 41 have been fully considered but they are not persuasive.

Regarding claims 20, 26, 32, 37, the rejection for the claims under 35 U.S.C. 112, first paragraph, has been withdrawn after the claims have been modified to comply with the written description requirement.

Regarding claims 20, 26, 32, 37, Applicants argue reference Petite et al., discloses only a conventional transmitting procedure. Petite et al. does not disclose or suggest any "mapping to a signal sequence of a low rate band" procedure. Rippin et al., discloses that upstream and downstream are assigned on lower, middle and upper frequencies. Rippin et al., does not disclose any "mapping to a signal sequence of a low rate band" procedure. Therefore the references (Petite et al. and Rippin et al.) do not disclose or suggest any "mapping to a signal sequence of a low rate band" procedure and are totally different than the present invention.

In response to the applicants' remark/argument, examiner respectfully disagrees.

Applicant is reminded that, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Examiner contends the combined system of references Petite et al., and Rippin et al., teaches “a low rate processing unit for mapping an output signal of the home automation service channel module to a signal sequence of a low rate of a data communication band used by a digital subscriber's network and transferring the mapped signal sequence to a digital subscriber's network access unit.”

Examiner interpreted “mapping an output signal of the home automation service channel module to a signal sequence of used by a digital subscriber's network and transferring the mapped signal sequence to a digital subscriber's network access unit” as “.....format both data signal portions originating at the RF transceiver into a composite information signal which may also include see Petite et al., Fig. 2, Fig. 4C, Fig. 4D, col. 14, lines 18 – 61. While reference Rippin et al. remedies the deficiencies of Petite et al. by disclosing the limitations of a low rate processing unit and a signal sequence of a low rate of a data communication band used by a digital subscriber's network. Examiner interpreted “a low rate processing unit” as DSL modem and “a signal sequence of a low rate of a data communication band used by a digital subscriber's network” as the lower frequency band either to equipment associated with the existing digital network services....., see Rippin et al., Fig. 1, Fig. 2, col. 6, lines 5 - 25.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Chen et al. (US 7394819 B2).
- b. Kim et al. (US 6941364 B2)
- c. Bennett III et al. (US 7551071 B2).

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/
Examiner, Art Unit 2476 <2Q10::2_03_10>

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2476